

II. AMENDMENTS TO THE SPECIFICATION:

Please replace paragraph [0056] with the following amended paragraph.

[0056] As to some embodiments of the invention particle injector (31) can have a built in selectably variable adjustment element (35) which allows adjustment or alteration of the distance between the nozzle orifice (5) and the location in the fluid stream (26) at which the particle injector (31) entrains particles (16) delivered from cell source (1). Selectably variable adjustment of the particle injector (31) allows alteration of fluid stream characteristics in compensation for a change of operation conditions from a first set of operating conditions to a second set of operating conditions whether the change in operation conditions comprises a change in sheath fluid, species of sperm cell, temperature, fluid stream pressure, fluid stream temperature, or otherwise. Importantly, by adjusting the distance between the particle injector (31) and the nozzle orifice (5) increased resolution based on a characteristic of cells can be achieved. With respect to sperm cells, increased resolution of sperm cells separated based upon bearing an X-chromosome or a Y-chromosome can be achieved utilizing the invention, as shown by Figures 5-7.